

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-130. (Cancelled)

131. (Currently amended) A data output service system for rendering at an output device output content managed from a ~~mobile~~ information apparatus, the system having one or more servers for generating output data for rendering, the mobile information apparatus being distinct and separate from the output device, and the one or more servers being distinct from the information apparatus and the output device, the system comprising:

means for receiving from the information apparatus at the one or more servers a security or authentication information associated with the user operating the information apparatus for authentication of the user, and in dependence of a successful authentication of the user, enabling the user access to the data output service;

~~means for receiving at a server application operated on a~~ the one or more servers a document object and ~~an output device object, the document object and the output device object being received at the server application from the mobile information apparatus over a network that is distinct from the information apparatus and the output device,~~ the document object relating to the output content and ~~the output device object having one or more attributes corresponding to the output device, including an indication of a language and or data format that is acceptable as input to the output device for rendering;~~

means for receiving at the one or more servers an output device object from the information apparatus over a network, the output device object having one or more attributes corresponding to the output device, including an indication

of a language and or data format that is acceptable as input to the output device for rendering;

means for generating device dependent output data at the server with the a server application, the device dependent output data being associated with the output content and related at least in part to the indication of a language or a data format included in the output device object received from the information apparatus for rendering the output content; and

means for delivering the output data to the output device for rendering the output content.

132. (Previously presented) The system of claim 131 further comprising means for obtaining payment information from the information apparatus as payment for the data output service provided at the output device or as payment for sending the output data from the server.

133. (Currently amended) The system of claim 131 further comprising means for receiving from the ~~mobile~~ information apparatus one or more job objects having one or more attributes corresponding to the output job, including output quality.

134. (Previously presented) The system of claim 131 in which the output device object includes a pointer or a reference to the language or the data format.

135. (Previously presented) The system of claim 131 in which the output device includes a display output control unit for displaying data content.

136. (Previously presented) The system of claim 131 in which the output device is a printer and the output data includes one or more of an image data, a graphics data, and text data.

137. (Currently amended) The system of claim 131 in which the ~~mobile~~ information apparatus is a wireless ~~mobile~~ information apparatus and includes one or more of a palmtop computer, a handheld computer, a laptop computer, a personal digital assistance(PDA), a smart phone, a screen phone, Internet pad, internet appliance, and a digital camera.

138. (Currently amended) The system of claim 132 in which the payment information is provided automatically by the ~~mobile~~ information apparatus.

139. (Currently amended) The system of claim 132 in which the payment information is provided through the ~~mobile~~ information apparatus as entered by a user in response to a prompt to enter payment information.

140. (Previously presented) The system of claim 132 in which the payment information includes service subscriber information corresponding to a pre-arranged subscription to the data output service system.

141. (Previously presented) The system of claim 140 further comprising correlating the data output service subscriber information with a subscriber database that stores subscriber profiles with subscription payment information.

142. (Currently amended) The system of claim 131 further comprising obtaining authentication information from the ~~mobile~~ information apparatus to authenticate permission for the information apparatus to access the data output service.

143. (Previously presented) The system of claim 131 further comprising means for establishing a communication channel between the information apparatus and the server application, the communication channel including one or more of an Internet, a local area network, a cellular network, and a wide area network.

144. (Previously presented) The system of claim 131 in which the output device is an audio output device and the output data includes audio data.

145. (Previously presented) The system of claim 131 in which the output device is a display device and the output data includes one or more of an image data, an audio data, and a video data.

146. (Previously presented) The system of claim 131 in which the document object includes a reference or pointer related to the data content.

147. (Previously presented) The system of claim 131 in which the means for generating device dependent output data at the server includes one or more of invoking, launching, calling, utilizing, and involving one or more applications.

148. (Currently amended) A method for generating a device dependent output data acceptable for rendering at an output device, the device dependent output data corresponding to output content accessible at least partly by a mobile information apparatus, the method comprising:

sending from the information apparatus to a server over a network, a security or authentication information associated with the user operating the information apparatus for authentication of the user, the server being distinct from the information apparatus and the output device, and in dependence of a

successful authentication of the user, enabling the user access to the data output service;

delivering from the ~~mobile~~ information apparatus at least part of a document object and at least part of an output device object to a the server over a network, ~~the server being distinct from the mobile information apparatus and the output device~~, the document object being associated with the output content and the output device object including an indication of a language and or data format that is acceptable to the output device for rendering;

receiving from the server device dependent output data related at least in part to the indication of a language or a format included in the output device object delivered from the information apparatus; and

delivering the output data from the information apparatus to the output device for rendering of the output content.

149. (Currently amended) The method of claim 148 further comprising establishing a communication channel between the ~~mobile~~ information apparatus and the output device; and

receiving at the ~~mobile~~ information apparatus over the communication channel one or more attributes corresponding to the output device.

150. (Previously presented) The method of claim 148 in which the server includes a computing device in a network and the network includes one or more of an Internet, a local area network, a cellular network, and a wide area network.

151. (Previously presented) The method of claim 148 in which the output device includes one or more of a display device, a projection device, a printing device or an audio output device.

152. (Currently amended) The method of claim 148 further comprising discovering the selected output device as one of one or more output devices that are discovered by the ~~mobile~~ information apparatus as being available for rendering the output content.

153. (Previously presented) The method of claim 148 in which the document object includes the output content.

154. (Previously presented) The method of claim 148 in which the document object includes a pointer or reference related to the output content.

155. (Previously presented) The method of claim 148 in which the server obtains the output content based on a pointer or reference to the output content included in the document object.

156. (Currently amended) The method of claim 148 in which the ~~mobile~~ information apparatus is a wireless mobile information apparatus and the wireless mobile information apparatus includes one or more of a palmtop computer, a handheld computer, a laptop computer, a personal digital assistance(PDA), a smart phone, a screen phone, Internet pad, internet appliance, and a digital camera.

157. (Currently amended) A method for generating device dependent output data acceptable for rendering at each of one or more selected output devices, the device dependent output data for each selected output device corresponding to an output content accessible at least partly by a ~~mobile~~ information apparatus, the method comprising:

establishing a communication channel between the ~~mobile~~ information apparatus and one or more output devices;

receiving at the ~~mobile~~ information apparatus over the communication channel one or more attributes corresponding to one or more output devices;

selecting at the ~~mobile~~ information apparatus one or more output devices for rendering the output content;

delivering from the ~~mobile~~ information apparatus at least partially a document object and one or more output device objects to one or more servers over a network, the one or more servers being distinct from the ~~mobile~~ information apparatus and the one or more selected output devices, the document object being associated with the output content, and the one or more output device objects having one or more attributes corresponding to each of the one or more selected output devices, including an indication of a language and or data format that is acceptable to each output device for rendering;

sending from the information apparatus to the one or more servers over a network, a security or authentication information associated with the user operating the information apparatus, and in dependence of a successful authentication of the user, enabling the user access to the data output service;
and

receiving from the one or more servers device dependent output data ~~for rendering the~~ corresponding to the data content ~~at the one or more selected output devices,~~ the device dependent output data further being related at least in part to the indication of a language or a data format included in the one or more output device objects delivered from the information apparatus.

158. (Previously presented) The method of claim 157 in which the one or more servers are connected to a computer network that includes the Internet.

159. (Currently amended) The method of claim 157 in which the ~~mobile~~ information apparatus is a wireless mobile information apparatus that includes one or more of a palmtop computer, a handheld computer, a laptop computer, a personal digital assistance (PDA), a smart phone, a screen phone, Internet pad, internet appliance, and a digital camera.

160. (Currently amended) The method of claim 157 further comprising sending payment information from the ~~mobile~~ information apparatus to the one or more servers over the network as payment for the data output service.

161. (Currently amended) The method of claim 157 further comprising discovering with the ~~mobile~~ information apparatus one or more output devices as being available for rendering the output content.

162. (Previously presented) The method of claim 157 in which the document object includes the output content.

163. (Previously presented) The method of claim 157 in which the document object includes a pointer or reference related to the output content.

164. (Previously presented) The method of claim 157 in which the one or more servers obtain output content based on the pointer or reference to the output content included in the document object.

165. (Previously presented) The method of claim 157 further comprising delivering the device dependent output data to each selected output device for rendering of the output content.

166. (Currently amended) The method of claim 157 further comprising sending from the ~~mobile~~ information apparatus the device dependent output data for rendering at each selected output device.

167. (Currently amended) A data output method for ~~rendering at a selected output device~~ output data corresponding to the output content ~~from~~ with a mobile information apparatus, comprising:

~~establishing a communication channel between the mobile information apparatus and the selected output device;~~

establishing a communication channel between the ~~mobile~~ information apparatus and one or more servers over a network;

delivering from the ~~mobile~~ information apparatus at least part of a document object and at least part of an output device object to the one or more servers, ~~which is or are~~ the one or more servers being distinct from the ~~mobile~~ information apparatus and the output device, the document object ~~being associated with~~ including a pointer or reference to the output content for the one or more servers to retrieve the data content from a content server with the pointer or reference, and the output device object including at least an indication related to a form or format that is acceptable for rendering at ~~the~~ a selected output device;

sending from the information apparatus to the one or more servers over a network, a security or authentication information associated with the user operating the information apparatus for authentication of the user;

receiving at the ~~mobile~~ information apparatus device dependent output data from the one or more servers, the output data corresponding to the output content and being related at least in part to the indication of a form or format that is acceptable to the selected output device for rendering; ~~and~~

~~delivering the device specific output data from the mobile information apparatus to the selected output device for rendering the output content.~~

168. (Currently amended) The method of claim 167 further comprising obtaining an output device object at the mobile information apparatus, the obtaining of the output device object including one or more of obtaining information from a user input, from a communication with the selected output device, and or from a default parameter or preference.

169. (Currently amended) The method of claim 167 further comprising discovering the selected output device as one of one or more output devices that are discovered by the mobile information apparatus as being available for rendering the output content.

170. (Previously presented) The method of claim 167 further comprising selecting an output device compatible for receiving the output data.

171. (Currently amended) The method of claim 167 further comprising conforming at the mobile information apparatus the output data into a form more suitable for rendering at the selected output device.

172. (Currently amended) A system for generating a device dependent output data acceptable for rendering at an output device, the device dependent output data corresponding to output content accessible at least partly by a mobile information apparatus, comprising:

a server that is distinct from the mobile information apparatus and the output device, the server being operable to receive a document object and at least part of an output device object, the document object being associated with

the output content and the output device object having one or more attributes corresponding to the output device, including an indication of a language and or data format that is acceptable to the output device for rendering the output content; the server being further operable to receive from the information apparatus a security or authentication information associated with the user operating the information apparatus for authentication of the user;

a server application on the server for receiving the document object and at least part of the output device object and for generating the device dependent output data related at least in part to the indication of a language or a data format included in the output device object received from information apparatus; and

means for delivering the device dependent output data to the output device for rendering of the output content.

173. (Previously presented) The system of claim 172 further comprising means for establishing a communication channel between the information apparatus and the server application, and the communication channel including one or more of an Internet, a local area network, a cellular network, and a wide area network.

174. (Previously presented) The system of claim 172 in which the output device includes an audio output device and the output data includes audio data.

175. (Previously presented) The system of claim 172 in which the output device includes a display device and the output data includes one or more of an image data, an audio data, and a video data.

176. (Previously presented) The system of claim 172 in which the output device includes a printing device and the output data includes one or more of an image data, a graphics data, and a text data.

177. (Currently amended) A system for generating device dependent output data acceptable for rendering at each of one or more selected output devices, the device dependent output data for each selected output device corresponding to an output content accessible at least partly by a mobile information apparatus, comprising:

a server that is accessible over a network and is distinct from the mobile information apparatus and the one or more selected output devices, the server being operable for receiving from the mobile information apparatus one or more document objects and one or more output device objects, the one or more document objects being associated with the output content and the one or more output device objects having one or more attributes corresponding to the one or more selected output devices, including an indication of a language and or data format that is acceptable to the output device for rendering;

means for establishing a communication channel between the server and the mobile information apparatus at least in part over an Internet;

means for receiving at the server from the information apparatus a security or authentication information associated with the user operating the information apparatus for authentication of the user; and

a server application operating at the server for generating device dependent output data associated with each of the corresponding one or more selected output devices, the device dependent output data being related at least in part to the indication of a language or a data format included in the output device object received from the information apparatus; and

means for delivering the device dependent output data to the mobile information apparatus over the communication channel.

178. (Currently amended) The system of claim 177 further comprising means for delivering the device dependent output data from the mobile information

apparatus to the one or more selected output devices for rendering of the output content.

179. (Previously presented) The system of claim 177 in which each output device includes one of a display device and an audio output device and the output data including audio data.

180. (Currently amended) In a computer memory, client software operable from a ~~mobile~~ information apparatus for generating device dependent output data acceptable for rendering at a selected output device, the device dependent output data corresponding to output content accessible at least partly by the ~~mobile~~ information apparatus, the computer memory comprising:

software for delivering from the ~~mobile~~ information apparatus at least part of a document object and at least part of an output device object to a server that is distinct from the ~~mobile~~ information apparatus and the output device, the document object being associated with the output content and the output device object having one or more device dependent attributes corresponding to the selected output device and including an indication of a language or a data format that is acceptable to the output device for rendering, the document object and the output device object being required at the server for generating device dependent output data corresponding to the output content and acceptable for rendering at the selected output device;

software for sending from the information apparatus to the server over a network, a security or authentication information associated the user operating the information apparatus for authentication of the user;

software for receiving at the ~~mobile~~ information apparatus the output data for rendering at the selected output device; and

~~software for delivering the output data from the mobile information apparatus to the selected output device for rendering of the output content.~~

181. (Currently amended) The computer memory of claim 180 further comprising software for establishing communication between the ~~mobile~~ information apparatus and one or more output devices.

182. (Currently amended) The computer memory of claim 180 further comprising software for establishing a communication channel between the ~~mobile~~ information apparatus and the server, the communication channel including one or more of an Internet, a local area network, a cellular network, and a wide area network.

183. (Currently amended) The computer memory of claim 180 in which the information apparatus is a wireless ~~mobile~~ information apparatus and includes one or more of a palmtop computer, a handheld computer, a laptop computer, a personal digital assistance (PDA), a smart phone, a screen phone, Internet pad, internet appliance, and a digital camera.

184. (Previously presented) The computer memory of claim 180 in which the output device being one of a display device and an audio output device and the output data includes audio data.

185. (Previously presented) The computer memory of claim 180 in which the output device includes a printer and the output data include one or more of an image data, a graphics data, and text data.

186. (Currently amended) The computer memory of claim 180 further comprising software for obtaining payment information at the ~~mobile~~ information apparatus as payment for receiving the output data.

187. (Previously presented) The computer memory of claim 181 in which the communication channel is a wireless communication channel and the computer memory further comprises software for discovering the one or more output devices over the wireless communication channel.

189. (Currently amended) The system of claim 177 in which the communication channel between the ~~mobile~~ information apparatus and one or more output devices includes a wireless communication channel.

190. (Previously presented) The system of claim 177 in which the output device includes a printing device and the output data includes one or more of an image data, a graphics data, and a text data.

191. (Previously presented) The system of claim 177 in which the document object includes a reference or pointer related to the data content.

192. (Previously presented) The system of claim 177 in which the output device object further includes an identification related to the output device, the identification including one or more of an output device brand, model, registration, and IP address.

193 (Previously presented) The system of claim 172 in which the document object includes a reference or pointer related to the data content.

194. (Previously presented) The system of claim 172 further comprising means for retrieving data content employing the document object.

195. (Currently amended) The method of claim 167 further comprising obtaining payment information at the ~~mobile~~ information apparatus as payment for receiving the output data corresponding to the output content.

196. (Currently amended) The method of claim 167 further comprising obtaining a document object at the ~~mobile~~ information apparatus, including a user selecting at least a pointer or reference to a data content.

197. (Currently amended) The method of claim 167 in which the communication channel between the ~~mobile~~ information apparatus and the server includes one or more of an Internet, a local area network, a cellular network, and a wide area network.

198. (Currently amended) The method of claim 167 in which the communication channel between the ~~mobile~~ information apparatus and the selected output device includes a wireless communication channel and the method further comprises discovering the one or more output device over the wireless communication channel.

199. (Currently amended) The method of claim 167 in which the ~~mobile~~ information apparatus is a wireless ~~mobile~~ information apparatus and the information apparatus includes one or more of a palmtop computer, a handheld computer, a laptop computer, a personal digital assistance(PDA), a smart phone, a screen phone, Internet pad, internet appliance, and a digital camera.

200. (Previously presented) The method of claim 157 in which the communication channel includes a wireless communication channel and the

method further comprises discovering the one or more output device over the wireless communication channel.